

DOCUMENT SORTING APPARATUS 10

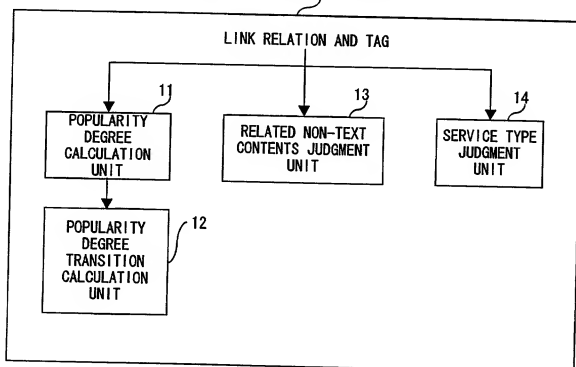
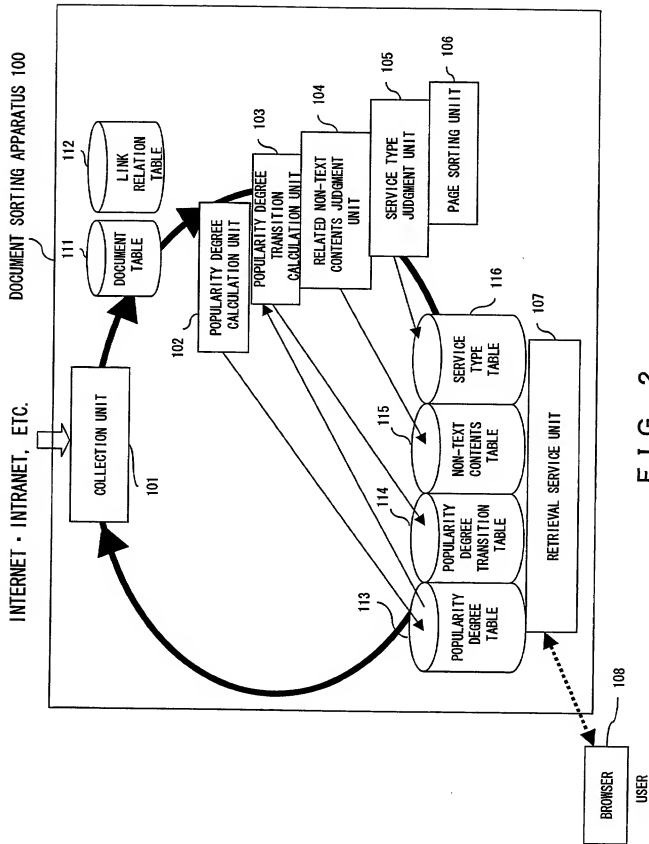


FIG. 1

10083124.022702



DOCUMENT TABLE 111

URL	ID
http://aaa.co.jp/	123
http://bbb.co.jp/dd/	124
....
.....

FIG. 3

LINK RELATION TABLE 112

COLLECTION DATE	UPDATE DATE	LINK SOURCE ID	LINK DESTINATION ID STRING
010810	010725	123	124, 128, 3150, 3630,
010810	010620	124	256, 975, 1225,
....

FIG. 4

POPULARITY DEGREE TABLE 113

CALCULATION DATE	DOCUMENT ID	POPULARITY DEGREE	POPULARITY DEGREE ORDER
010820	123	5036	346
010820	124	83645	5890
.....

FIG. 5

POPULARITY DEGREE TRANSITION TABLE 114

DOCUMENT ID	POPULARITY DEGREE		POPULARITY DEGREE ORDER	
	REGRESSION COEFFICIENT	INTERCEPT	REGRESSION COEFFICIENT	INTERCEPT
123	-12	346	-6	233
124	-562	5890	-152	851
.....

F I G. 6

NO-TEXT CONTENTS TABLE 115

DOCUMENT ID	RELATED NON-TEXT CONTENTS ID	TYPE
123	3630	mv
123	3150	snd
....

F I G. 7

SERVICE TYPE TABLE 116

DOCUMENT ID	SERVICE TYPE
124	SEARCH
123	SHOP

FIG. 8

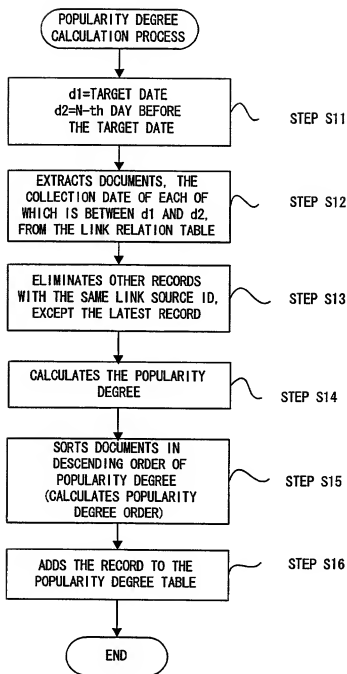


FIG. 9

SIMPLY LOCATES POPULARITY DEGREES IN A TIME SERIES:
BASICALLY A POPULARITY DEGREE MONOTONOUSLY INCREASES
AS TIME ELAPSES (HOW THE POPULARITY DEGREE CHANGES
AS TIME ELAPSES IS UNKNOWN).

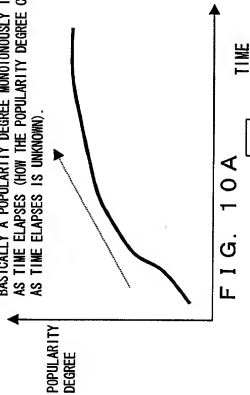


FIG. 10A

POPULARITY
DEGREE
ORDER
(RANKING)

SOLUTION (1)
CALCULATES A POPULARITY DEGREE DURING
A SPECIFIC TIME PERIOD:
IF THE POPULARITY IS TEMPORARY, THE POPULARITY
DEGREE DECREASE AS TIME ELAPSES.

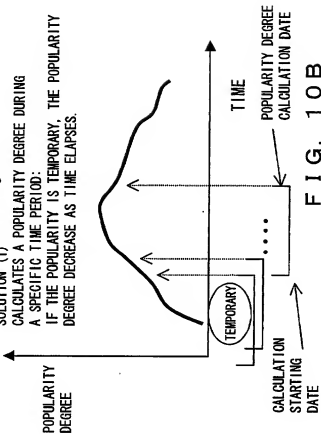


FIG. 10B

SOLUTION (2)
LOCATES A POPULARITY DEGREE ORDER IN A TIME SERIES:
POPULARITY DEGREE ORDER TYPICALLY BECOMES EVEN AS
TIME ELAPSES.

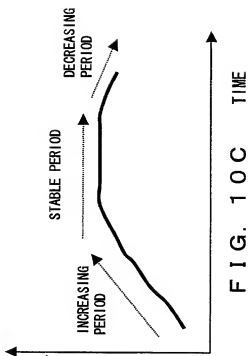
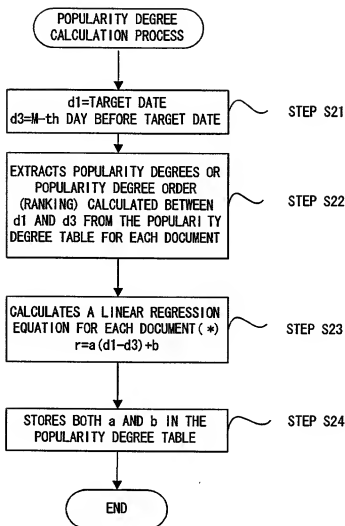


FIG. 10C



*IF POPULARITY DEGREES (OR POPULARITY DEGREE ORDER (RANKING)) OF d3, d3+1, ..., d1 (M DAYS) ARE ASSUMED TO BE w_0, w_1, \dots, w_{M-1} RESPECTIVELY, THE FOLLOW EQUATIONS HOLD TRUE.

$$a = (M \times 1w - 1 \times w) / (M \times 12 - 1^2)$$

$$b = (1 \times 1w - w \times 12) / (1^2 - M \times 12)$$

$$Iw = \sum_{i=0}^{M-1} i * w_i \quad , \quad W = \sum_{i=0}^{M-1} w_i \quad , \quad I = \sum_{i=0}^{M-1} i \quad , \quad I2 = \sum_{i=0}^{M-1} i^2$$

FIG. 11

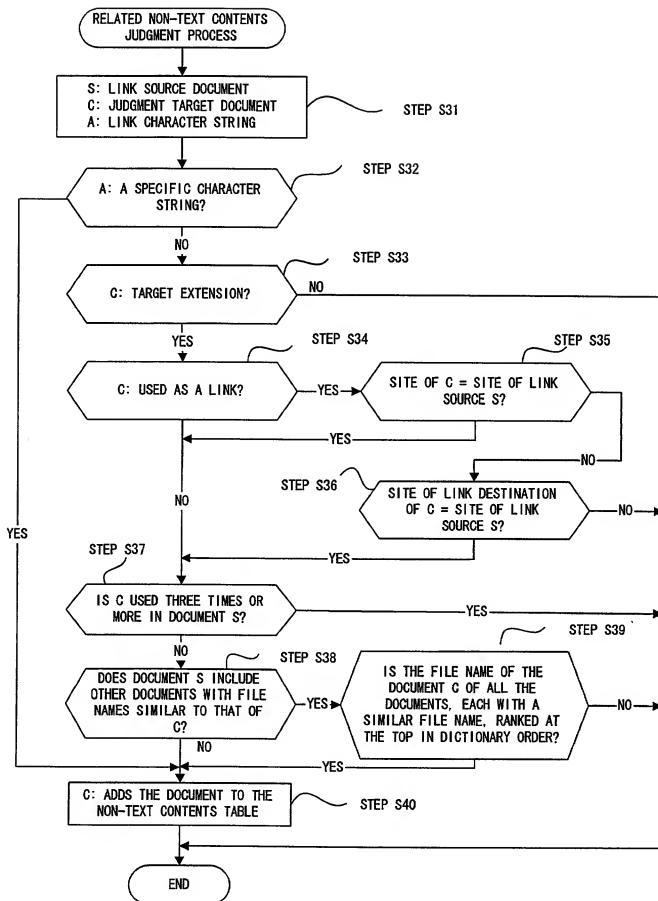


FIG. 12

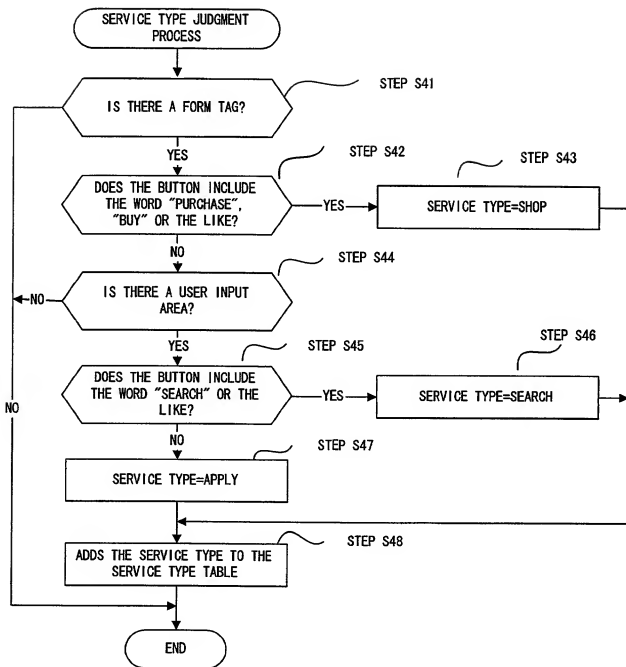


FIG. 13

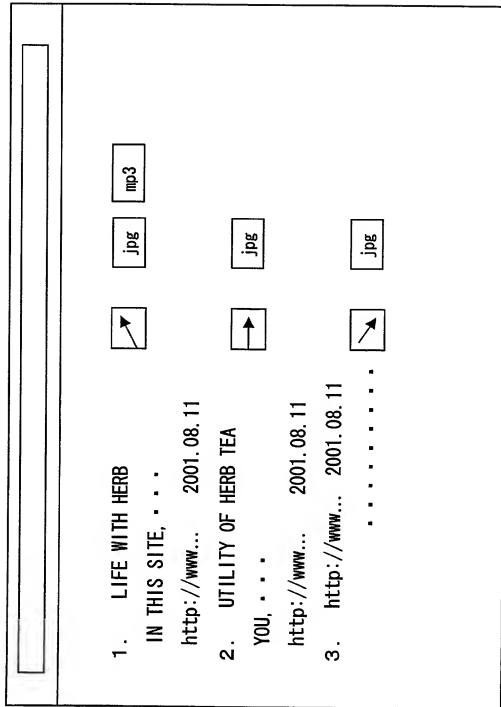
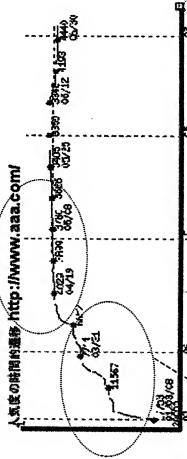


FIG. 14

CLICKS A POPULARITY DEGREE
TRANSITION ICON.

TRANSITION OF POPULARITY DEGREE ORDER OF
URL : www.aaa



CLICK

LINK SOURCE INDICATION

MAIN LINK SOURCE OF

URL : www.aaa
(01/7/10-20)

-aaa
-bbb
-ccc
-...

FIG. 15A

CLICK

FIG. 15B

ORDER	URL	POPULARITY DEGREE
•	aaa. co. jp	843
•	bbb. co. jp	632
•	ccc. co. jp	534
•	

THE PAST MONTH

THE PAST YEAR

CURRENT POPULARITY DEGREE LIST

FIG. 16 A

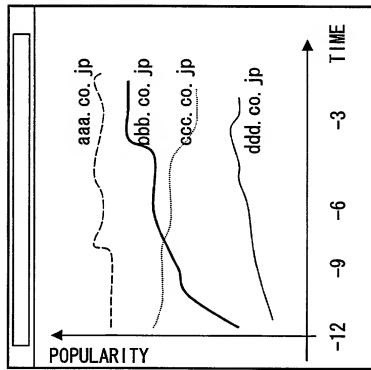


FIG. 16 B

“TOKYO”
CHIYODA-KU, MINATO-KU CHUO-KU
(URL LIST)

“MINATO-KU”
ROPPONGI, SHIBA ...
(URL LIST)

FIG. 17 A

FIG. 17 B



“ROPPONGI”
RESTAURANT, HALL
1. TTTTTT   IN THIS SITE, http://www.... 2001.8.10 2.

FIG. 17 C

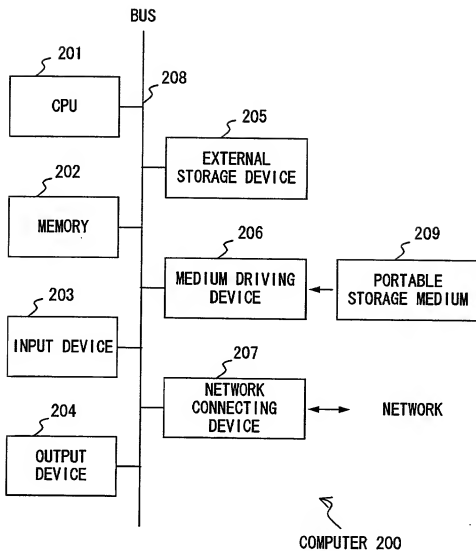


FIG. 18

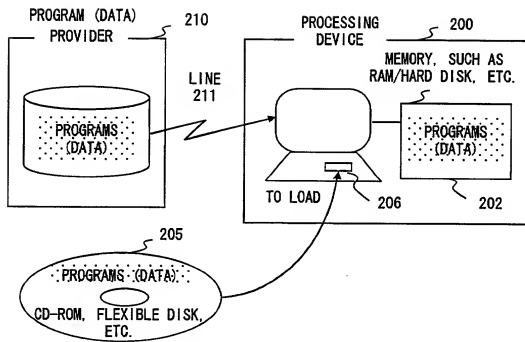


FIG. 19